3. (Thrice Amended) The flow-through device of Claim 1 in which said porous substrate has an average pore size of about 1 μm to about 250 μm.

4. (Thrice Amended) The flow-through device of Claim 60 in which said porous substrate has immobilized thereon about 2×10^{-19} to 2×10^{-15} nmol/nm^2 of said capture polynucleotide.

5. (Twice Amended) The flow-through device of Claim 1 or 60 in which said capture polynucleotide is covalently attached to the porous substrate.

6. (Twice Amended) The flow-through device of Claim 1 or 60 in which said capture polynucleotide is covalently attached to the porous substrate *via* a phosphodiester, phosphorothioate or phosphoramidate linkage.

G1

7. (Twice Amended) The flow-through device of Claim 1 or 60 in which said capture polynucleotide is covalently attached to the porous substrate *via* a carboxyamide linkage.

8. (Thrice Amended) The flow-through device of Claim 1 or 60 in which said capture polynucleotide is covalently attached to the porous substrate *via* a linker.

G2

11. (Thrice Amended) The flow-through device of Claim 1 or 60 in which said porous substrate has a void volume in the range of about 1 μl/cm^2 to about 100 μl/cm^2.

G3

13. (Thrice Amended) The flow-through device of Claim 1 in which the porous substrate has a porosity in the range of about 25 to 80%.

14. (Thrice Amended) The flow-through device of Claim 1 or 60 in which the capture polynucleotide is covalently immobilized on the porous substrate via its 5'- or 3'-terminal residue.

G4

21. (Thrice Amended) The flow-through device according to Claim 1 or 60 further comprising a housing in which the three-dimensional porous substrate is disposed.

26. (Thrice Amended) The method of Claim 23 or 64 in which said target nucleic acid is applied to the flow-through device under conditions wherein it hybridizes with said capture polynucleotide in less than one minute.

27. (Thrice Amended) The method of Claim 23 in which said porous substrate of said flow-through device has an average pore size of about 1 μm to about 250 μm.

G5

28. (Thrice Amended) The method of Claim 64 in which the density or surface concentration of said capture polynucleotide is about 2×10^{-19} to 2×10^{-15} nmol/nm^2.

29. (Twice Amended) The method of Claim 23 or 64 in which said capture polynucleotide is covalently attached to the porous substrate of the flow-through device.

30. (Twice Amended) The method of Claim 23 or 64 in which said capture polynucleotide is covalently attached to the porous substrate of the flow-through device *via* a phosphodiester, phosphorothioate or phosphoramidate linkage.

31. (Twice Amended) The method of Claim 23 or 64 in which said capture polynucleotide is covalently attached to the porous substrate of the flow-through device *via* a carboxyamide linkage.

32. (Thrice Amended) The method of Claim 23 or 64 in which said capture polynucleotide is covalently attached to the porous substrate of the flow-through device *via* a linker.

G6

35. (Thrice Amended) The method of Claim 23 or 64 in which said porous substrate of said flow-through device has a void volume in the range of 0.1 μl/cm^2 to about 100 μl/cm^2.

✓ 36. (Thrice Amended) The method of Claim 23 or 64 which further includes the step G4 of washing said hybridized complex.

✓ 40. (Thrice Amended) A method of determining whether a sample contains a target nucleic acid, said method comprising the steps of:

(a) flowing a sample suspected of containing a target nucleic acid through G7 a flow-through device according to Claim 1 or 60 under conditions wherein the target nucleic acid and capture polynucleotide hybridize; and

(b) detecting the presence of hybrids, wherein a positive detection indicates the presence of the target nucleic acid in the sample.

✓ 44. (Thrice Amended) A kit for capturing a target nucleic acid of interest from a sample, comprising:

G8 a) a flow-through device according to Claim 1 or 60; and

b) a housing into which the flow-through device can be disposed.

✓ 50. (Four Times Amended) A kit for capturing a target nucleic acid from a sample comprising:

G9 a) a flow-through device according to Claims 1 or 60; and

b) a capture polynucleotide capable of being covalently attached to the porous substrate.

✓ 52. (Four Times Amended) A kit for capturing a target nucleic acid from a sample comprising:

a) a flow-through device according to Claims 1 or 60; and

G10 b) means for generating a capture polynucleotide which is capable of hybridizing to the target nucleic acid and which is capable of being covalently attached to the porous substrate.

Please add new Claims 68-83 as follows:

68. (New) A flow-through device for capturing a target nucleic acid comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of polyethylene, polycarbonate and polypropylene and having immobilized thereon a capture polynucleotide which is capable of hybridizing to the target nucleic acid.

69. (New) A flow-through device for capturing a target nucleic acid comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of polyethylene, polystyrene, polycarbonate and polypropylene and having immobilized thereon about 6×10^{-17} to 6×10^{-16} nmol/nm^2 of a capture polynucleotide which is capable of hybridizing to the target nucleic acid.

70. (New) A flow-through device for capturing a target nucleic acid comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of polyethylene, polystyrene, polycarbonate and polypropylene and having immobilized thereon a capture polynucleotide which is capable of hybridizing to the target nucleic acid, wherein said porous substrate is about 1 mm to 20 mm thick.

71. (New) The flow-through device of Claim 68 in which said porous substrate has an average pore size of about 10 μm to about 100 μm.

72. (New) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of polyethylene, polystyrene, polycarbonate and polypropylene and having a porosity in the range of about 25 to 80% and having immobilized thereon a capture polynucleotide capable of hybridizing to the target nucleic acid.

73. (New) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of glass, polyethylene, polystyrene, polycarbonate and polypropylene and having an average pore size of about 10 μm to about 100 μm and a porosity in the range of about 25

to 80% and having immobilized thereon about 6 x 10^{-17} to 6 x 10^{-16} nmol/nm^2 of a capture polynucleotide which is capable of hybridizing to the target nucleic acid.

74. (New) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of glass, polyethylene, polystyrene, polycarbonate and polypropylene and having an average pore size of about 10 μm to about 100 μm and a porosity in the range of about 25 to 80% and having immobilized thereon a capture polynucleotide capable of hybridizing to the target nucleic acid, wherein said porous substrate is about 1 mm to 20 mm thick.

C11

75. (New) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of glass, polyethylene, polystyrene, polycarbonate and polypropylene and having an average pore size of about 10 μm to about 100 μm and having immobilized thereon about 6 x 10^{-17} to 6 x 10^{-16} nmol/nm^2 of a capture polynucleotide which is capable of hybridizing to the target nucleic acid, wherein said porous substrate is about 1 mm to 20 mm thick.

76. (New) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of glass, polyethylene, polystyrene, polycarbonate and polypropylene and having a porosity in the range of about 25 to 80% and having immobilized thereon about 6 x 10^{-17} to 6 x 10^{-16} nmol/nm^2 of a capture polynucleotide which is capable of hybridizing to the target nucleic acid, wherein said porous substrate is about 1 mm to 20 mm thick.

77. (New) A flow-through device for capturing a target nucleic acid, comprising a three-dimensional porous substrate composed of a polymeric material selected from the group consisting of glass, polyethylene, polystyrene, polycarbonate and polypropylene and having an average pore size of about 1 μm to about 250 μm and a porosity in the range of about 25 to 80% and having immobilized thereon about 2 x 10^{-19} to 2 x 10^{-15} nmol/nm^2 of a capture polynucleotide which is capable of hybridizing to the target nucleic acid, wherein said porous substrate is about 1 mm to 20 mm thick.

78. (New) The flow-through device of Claim 68, 69, 70, 71, 72, 73, 74, 75, 76 or 77 in which said capture polynucleotide is covalently attached to the porous substrate.

79. (New) The flow-through device of Claim 68, 69, 70, 71, 72, 73, 74, 75, 76 or 77 in which said porous substrate has a void volume in the range of about 1 $\mu l/cm^2$ to about 100 $\mu l/cm^2$.

80. (New) The flow-through device of Claim 68, 69, 70, 71, 72, 73, 74, 75, 76 or 77 in which the capture polynucleotide is covalently immobilized on the porous substrate via its 5'- or 3'- terminal residue.

G11

81. (New) The flow-through device according to Claim 68, 69, 70, 71, 72, 73, 74, 75, 76 or 77 further comprising a housing in which the three-dimensional porous substrate is disposed.

82. (New) A method of capturing a target nucleic acid from a sample, said method comprising flowing a sample containing or suspected of containing a target nucleic acid through a flow-through device according to Claim 68, 69, 70, 71, 72, 73, 74, 75, 76 or 77 under conditions wherein said target nucleic acid and capture polynucleotide hybridize to one another to form a hybridized complex, thereby capturing the target nucleic acid.

83. (New) The method of Claim 82 in which said target nucleic acid is applied to the flow-through device under conditions wherein it hybridizes with said capture polynucleotide in less than one minute.